

COMMUNICATIONS RECEIVER WITH INTEGRATED
IF FILTER AND METHOD THEREFOR

5 ABSTRACT OF THE DISCLOSURE

A receiver (22) includes an IF filter (44) and a nearby process-variant circuit (80) formed on a common semiconductor substrate (24). The actual center frequency of the IF filter (44) is determined by resistors (70, 74) and capacitors (72, 76) exhibiting imprecise values and is unlikely to equal a nominal center frequency. The process-variant circuit (80) includes a test resistor (102) and test capacitor (104) formed using the same resistor-forming and capacitor-forming processes used to form the IF filter resistors (70, 74) and capacitors (72, 76). In response a test signal (88) from the process-variant circuit (80) and a reference signal (84) from a process-invariant circuit (82), a tuning parameter for a tunable local oscillator (90) is determined so that a local oscillation signal (94) will exhibit a frequency which, when mixed with an RF signal (38) yields an IF signal (42) at the actual center frequency of the IF filter (44).